Attorney Docket No. HARD1.033A (129843-1051) Application No. 10/090,060



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re Application of: Caidian Luo

Application No.: 10/090,060

Filing Date: March 1, 2002

Group Art Unit: 1755

Examiner: Paul D. Marcantoni

For: Fiber Reinforced Cement Composite Materials

Using Chemically Treated Fibers with Improved

Dispersibility

DECLARATION UNDER 37 CFR § 1.132

I, Caidian Luo, declare that:

- 1. I am a named inventor in the above-identified U.S. Application No. 10/090,060 filed March 1, 2002.
- 2. I, as a co-inventor, state that providing components for a building material as disclosed with the subject application for patent provide improvements to the building material.
- 3. A document attached as **EXHIBIT A** is a document entitled "Example: Differences in Mechanical Properties of Fiber-Cement Prototypes with Dispersant Pretreated Fiber and Direct Addition of Dispersant to Fiber-Cement Formulation" that describes pre-treating fibers in accordance with the subject invention as claimed offers superior properties to a building material as compared with a building materials made using prior art methods, in which fibers are not pretreated and a dispersant is part of an admixture.
- 4. I disclosed this information to the Examiner in an interview held October 19, 2005.
- 5. Pursuant to the evidence set forth in **EXHIBIT A**, the claimed invention is not obvious over documents cited in an Office Action mailed April 25, 2007.
- 6. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these

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statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Caidian Luo

Date

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Direct Addition of Dispersant to Fiber-Cement Formulation Cement Prototypes with Dispersant Pretreated Fiber and Example: Differences in Mechanical Properties of Fiber-

Toughness (KJ/m^3)	0.40	0.19	1.04	0.54
Ultimate Strain (um/m)	3317	1405	4100	1213
MOE (GPa)	0.97	0.23	1.69	0.31
MOR (MPa)	2.55	0.43	4.03	0.44
	Mean	St Dev	Mean	St Dev
Application	Addition to Formulation Fiber Pretreatment			

EXHIBIT

PENGAD 800-631-698K

- 1% of Quaternary Amine dispersant (based on dry fiber weight) was used
- material, compared to directly adding the dispersant to the fiberphysical and mechanical properties for fiber-cement composite Pre-treating fiber with the dispersant significantly improved cement admixture